

REMARKS

Claims 6-8, 10-15 and 17-19 are canceled without prejudice or disclaimer. Claims 1, 3 and 5 are amended. Support for the amended claims appears throughout the specification as filed, including, e.g., the original claims.

It is respectfully submitted that the present amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

I. Objection to the Claims

Applicants acknowledge with appreciation that the prior rejection under 35 U.S.C. 112, second paragraph has been withdrawn, and claims 1-19 have been considered on the merits.

II. The Rejection of Claims 1-19 under 35 U.S.C. 103

Claims 1-19 remain rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Dutron et al., WO2004/023879 ("R1"). The Examiner reiterates that R1 discloses the incorporation of xylanases into dough to improve the baking properties of the baked product, and states that a preferred xylanase is the xylanase of *B. halodurans* C-125. The Examiner alleges that it would have been obvious to one of ordinary skill in the art to add xylanase to dough and bakery products to improve their properties.

The Examiner states that Applicants' prior response has been considered but is not persuasive. The Examiner contends that regardless of the structural differences which may exist between the claimed sequences and those disclosed by the cited references, there is no "inventive step" demonstrated by Applicants. The Examiner alleges that incorporation of xylanase into dough for baking to improve the rheological properties of dough and/or baking qualities was known at the time of the invention. The Examiner contends that the screened and closed xylanase was expected to have the same properties regarding dough improvement as disclosed by R1.

This rejection is respectfully traversed.

In order to expedite prosecution and simplify the record, Applicants have amended the claims to recite compositions and processes for preparing a dough-based product, comprising adding a xylanase to a dough, leavening, and heating the dough, wherein the xylanase is a polypeptide having at least 90 % identity to the amino acid sequence as shown in positions 1-182 of SEQ ID NO: 2. Applicants' arguments below are submitted on the basis of the amended claims. Reconsideration of the rejection is respectfully requested.

Obviousness is a question of law based on underlying findings of fact. An analysis of obviousness must be based on several factual inquiries: (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; (3) the level of ordinary skill in the art at the time the invention was made; and (4) objective evidence of nonobviousness, if any. *Graham v. John Deere Co.*, 148 USPQ 459, 467 (1966). The teachings of a prior art reference are underlying factual questions in the obviousness inquiry. *Para-Ordnance Mfg., Inc. v. SGS Imp. Int'l, Inc.*, 37 USPQ2d 1237, 1240 (Fed. Cir. 1995). “[R]jections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int’l Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 quoting *In re Kahn*, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).

While the Examiner alleges that it would be obvious to add xylanase *generally* to dough and bakery products, the Examiner has provided no articulated reasoning with some rational underpinning as to why it would have allegedly been obvious to one of ordinary skill in the art to do so with the *particular* xylanase according to Applicants’ claims, i.e., a polypeptide having at least 90 % identity to the amino acid sequence as shown in positions 1-182 of SEQ ID NO: 2. As previously noted, the xylanase identified in R1 has low sequence identity of only approximately 8% to the xylanase of Applicants’ claims. The amended claims provide even more particular structural and functional elements in requiring at least 90% identity to SEQ ID NO: 2, none of which are suggested by R1. Accordingly, the Examiner has not met his burden in establishing a *prima facie* case of obviousness.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103(a). Applicants respectfully request reconsideration and withdrawal of the rejection.

III. Conclusion

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

All required fees were charged to Novozymes North America, Inc.'s Deposit Account No. 50-1701 at the time of electronic filing. The USPTO is authorized to charge this Deposit Account should any additional fees be due.

Respectfully submitted,

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